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EXAMINER	
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ART UNIT	**PAPER NUMBER**
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/500,052	SATT ET AL.	
	Examiner	Art Unit	
	Leon Andrews	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 June 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/24/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Abstract

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because it repeated information in the title. See MPEP § 608.01(b).

Correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13, 17, 25 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13, line 5 and Claim 25, line 8 recited "controlling said at least one".

Claim 13, line 6, Claim 17, line 1 and Claim 29, lines 1-2 recited "dynamically adjusting said".

Claim 25, line 1 recited "tangibly embodying".

The limitation of these terms is unclear that renders the claims indefinite. These limitations are not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art will not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-29 are rejected under 35 U.S.C. 102(e) as being anticipated by **Patel et al.** (Patent No.: US 6,522,628 B1)

Regarding Claim 1, Patel et al discloses a resource allocation system (system for managing resources in a wireless communications network, column 2, lines 11-12) for a network (allocating resources in a wireless network, column 2, lines 16-17), the system comprising:

a traffic shaper operative (Fig. 1, servers 14 routes traffic, column 5, lines 18-20) to decompose a network stream into a plurality of flows (shaping and policing data flows in a wireless network, column 3, lines 6-7), each flow representing a service (communicating information over a wireless link, column 4, lines 59-60) or application on a network (Fig. 1, wireless network 10) and shape traffic on said network by allocating a different bandwidth and delay (bandwidth available to allocate to certain flows and time dependent, column 5, lines 14-16) to each flow; and

a policy processor operative (queue management functionality for processing traffic in the wireless 10, column 5, lines 56-57) to control said traffic shaper and dynamically allocate at

least one air interface resource (Fig. 1, RF wireless airlink communicating information, column 4, lines 59-61) to at least one network device (Fig. 1, radio frequency (RF) link for mobile devices 18, column 4, lines 51-52) in association with at least one of said flows.

Regarding Claim 2, Patel et al discloses a system according to claim 1, wherein said policy processor is operative to retrieve information regarding a mobile user (Fig. 1, servers 14, routes traffic and tracts the location of the mobile devices 18, column 5, lines 17-20).

Regarding Claim 3, Patel et al discloses a system according to claim 2, wherein said information includes any of a user profile and a user location (Fig. 1, servers 14, routes traffic and tracts the location of the mobile devices 18 in the cells 12, column 5, lines 17-20) and user identification.

Regarding Claim 4, Patel et al discloses a system according to claim 1, wherein said policy processor is operative to retrieve information regarding said network (Fig. 1, servers 14 connected to a mobile gateway 20, routes traffic within the wireless network 10, column 5, lines 18-20).

Regarding Claim 5, Patel et al discloses a system according to claim 4, wherein said information includes any of an ASP profile and a measure of loading (system loading on the physical layer in allocating transmission resources in the network 10, column 6, lines 11-13) on said air interface.

Regarding Claim 6, Patel et al discloses a system according to claim 2, wherein said policy processor is operative to issue a service quality control signal (usage of a mobile device 18 including transmitting and receiving signals, column 4, lines 63-64) associated with any of said information to said traffic shaper.

Regarding Claim 7, Patel et al discloses a system according to claim 2, wherein said policy processor is operative to interface with a mobile telecommunications system infrastructure (Fig. 1, mobile device 18 may be cell phone communicating information over a wireless link, column 4, lines 57-60) and retrieve any of said information.

Regarding Claim 8, Patel et al discloses a system according to claim 1, and further comprising:

administration means (managing transmission resources in a wireless communications network, column 2, lines 10-11) for provisioning said system, defining policies (Fig. 1, server 14 has a defined bandwidth with which to communicate with the mobile device 18 in cells 12, column 5, lines 7-8) for said policy processor, and monitoring system operations (Fig. 1, server 14, routes traffic and tracts the location of the mobile device18 in the cells 12, column 5, lines 18-21).

Regarding Claims 9, 15, 21 and 27, Patel et al discloses a system (system for managing resources in a wireless communications network, column 2, lines 11-12), method (method for managing resources in a wireless communications network, column 2, lines 10-12), architecture

(architecture work closely with traffic shaping, transmission control and policing to control and shape the traffic of various IP flows, column 1,lines 46-49) and storage Fig. 2, 40), wherein said network is a cellular telephone network (Fig. 1, wireless network 10 is a cellular network, column 4, line 28).

Regarding Claim 10, Patel et al discloses a system according to claim 9, wherein said policy processor comprises:

a capacity (Fig. 2, queue 40) and mobility analyzer (Fig. 2, queue manager 42) operative to:

track the distribution of a plurality of mobile stations (Fig. 1, 18) among a plurality of cells (Fig. 1, 12) of said network; and

determine load and available resources (Fig. 7, 142, determine if additional resources have become available, columns 9 and 10, lines 67 and 1 respectively) available to said air interface; and

a core policy processor operative (queue management functionality for processing traffic in the wireless 10, column 5, lines 56-57) to budget any of bit rate (effective bit-rate per connection, column 5, line 13), delay, duration, and amount of data for any of said cells such that said bit rate for any of said cells does not exceed a dynamic capacity (traffic flows are more accurately policed and shaped to account for resource limitations in the sector 12, column 11, lines 33-35) which is available for data transmission in said cell.

Regarding Claim 11, Patel et al discloses a system according to claim 1, wherein said traffic

shaper is intermediate a GGSN (Fig.1, mobile gateway 20) and an IP packet network (internet protocol (TCP/IP) data connections to the wireless portion of the network 10, column 5, lines 37-38).

Regarding Claim 12, Patel et al discloses a system according to claim 1, wherein said policy processor is intermediate said traffic shaper and an SGSN (mobile switching center, MSC, column 5, line 50).

Regarding Claim 13, Patel et al discloses a method (method for managing resources in a wireless communications network, column 2, lines 10-12) for allocating resources in a network (allocating resources in a wireless network, column 2, lines 16-17) comprising:

decomposing a network stream into a plurality of flows (shaping and policing data flows in a wireless network, column 3, lines 6-7);

shaping traffic (shaping and policing data flows in a wireless network, column 3, lines 6-7) on said network by allocating at least one resource (allocating resources in a wireless network, column 3, line 25) to each flow (Fig. 7, 112) of said plurality of flows; and

controlling (control traffic flows by allocating resources, column 2, lines 15-17) said at least one allocated resource (allocating resources in a wireless network, column 3, line 25) for at least one flow (Fig. 7, 112) of said plurality of flows by dynamically adjusting said at least one allocated resource (allocating resources in a wireless network, column 3, line 25) for at least one air interface (Fig. 1, RF wireless airlink communicating information, column 4, lines 59-61) that

is associated with at least one network device (Fig. 1, radio frequency (RF) link for mobile devices 18, column 4, lines 51-52).

Regarding Claims 14 and 26, Patel et al discloses the method (method for managing resources in a wireless communications network, column 2, lines 10-12) and storage (Fig. 2, 40), wherein each flow (Fig. 7, 112) of said plurality of flows represents a service (communicating information over a wireless link, column 4, lines 59-60) or application on a network down-link (Fig. 1, 24, 20, 14 and 18).

Regarding Claims 16, 22 and 28, Patel et al discloses the method (method for managing resources in a wireless communications network, column 2, lines 10-12), architecture (architecture work closely with traffic shaping, transmission control and policing to control and shape the traffic of various IP flows, column 1,lines 46-49) and storage (Fig. 2, 40) according, wherein said at least one resource (allocating resources in a wireless network, column 3, line 25) includes at least one of bandwidth (bandwidth available to allocate to certain flows and time dependent, column 5, lines 14-16) or delay.

Regarding Claims 17 and 29, Patel et al discloses the method (method for managing resources in a wireless communications network, column 2, lines 10-12) and storage (Fig. 2, 40), wherein said dynamically adjusting said at least one allocated resource (allocating resources in a wireless network, column 3, line 25) is in accordance with policies for said network (shaping and policing data flows in a wireless network, column 3, lines 6-7).

Regarding Claim 18, Patel et al discloses an architecture (architecture work closely with traffic shaping, transmission control and policing to control and shape the traffic of various IP flows, column 1,lines 46-49) for allocating resources in a network (allocating resources in a wireless network, column 3, line 25) comprising:

a first component (Fig. 7, 118) configured into a plurality of flows (shaping and policing data flows in a wireless network, column 3, lines 6-7);

a second component (Fig. 7, 138) configured for shaping traffic on said network by allocating at least one resource (allocating resources in a wireless network, column 3, line 25) to each flow (Fig. 7, 112) of said plurality of flows; and

a third component (Fig. 7, 138) configured for controlling said at least one allocated resource (allocating resources in a wireless network, column 3, line 25) for at least one flow (Fig. 7, 112) of said plurality of flows by dynamically adjusting said at least one allocated resource (allocating resources in a wireless network, column 3, line 25) for at least one air interface (Fig. 1, RF wireless airlink communicating information, column 4, lines 59-61) that is associated with at least one network device (Fig. 1, radio frequency (RF).

Regarding Claim 19, Patel et al discloses the architecture according to claim 18, wherein said first component and said second component are included in a traffic shaper (Fig. 1, servers 14 routes traffic, column 5, lines 18-20).

Regarding Claim 20, Patel et al discloses the architecture according to claim 18, wherein said

third component is included in a policy processor (queue management functionality for processing traffic in the wireless 10, column 5, lines 56-57).

Regarding Claim 23, Patel et al discloses the architecture according to claim 18, additionally comprising, a fourth component (Fig. 7, 138) configured for provisioning said network, defining policies for said third component for controlling said at least one allocated resource (allocating resources in a wireless network, column 3, line 25), and monitoring operations (Fig. 1, server 14, routes traffic and tracts the location of the mobile device18 in the cells 12, column 5, lines 18-21) of said network.

Regarding Claim 24, Patel et al discloses the architecture according to claim 23, wherein said fourth component is included in an administration unit (managing transmission resources in a wireless communications network, column 2, lines 10-11).

Regarding Claim 25, Patel et al discloses a programmable storage device (Fig. 2, 40) readable by a machine (Fig. 2, 42), tangibly embodying a program of instructions (processor programmed by software instructions, column 6, line 23-24) executable by a machine (Fig. 2, 42) to perform method steps for allocating resources in a network (allocating resources in a wireless network, column 3, line 25), said method steps selectively executed during the time when said program of instructions is executed on said machine, comprising:

decomposing a network stream into a plurality of flows (shaping and policing data flows in a wireless network, column 3, lines 6-7);

shaping traffic (shaping and policing data flows in a wireless network, column 3, lines 6-7) on said network by allocating at least one resource (allocating resources in a wireless network, column 3, line 25) to each flow (Fig. 7, 112) of said plurality of flows; and

controlling (control traffic flows by allocating resources, column 2, lines 15-17) said at least one allocated resource (allocating resources in a wireless network, column 3, line 25) for at least one flow (Fig. 7, 112) of said plurality of flows by dynamically adjusting said at least one allocated resource (allocating resources in a wireless network, column 3, line 25) for at least one air interface (Fig. 1, RF wireless airlink communicating information, column 4, lines 59-61) that is associated with at least one network device (Fig. 1, radio frequency (RF) link for mobile devices 18, column 4, lines 51-52).

Citation of Pertinent Prior Art

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jamal et al. (Patent No.: US 6,724,813 B1) discloses implicit resource allocation in a communication system

Del Val et al. (Patent No.: US 6,763,392 B1) discloses media streaming methods and arrangements.

Tan et al. (Pub. No.: US 2004/0215805 A1) discloses time based multimedia objects streaming apparatus and method

Forssell et al. (Patent No.: US 7,227,839 B2) discloses resource allocation in packet-format communication.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leon Andrews whose telephone number is (571) 270-1801. The examiner can normally be reached on Monday through Friday 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rao S. Seema can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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August 13, 2007